

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A catalyst system comprising a catalyst compound and an activator compound wherein the activator compound is represented by the formula:



wherein M is a Group 13 atom attached to a heterocyclic group (JY), wherein Y is a heterocyclic group comprising the at least one heteroatom J;

J is a Group 15 or 16 heteroatom contained in Y;

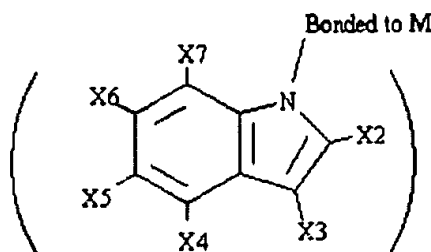
x is the valence of M + 1; and

Cat⁺ is a cation component;

and wherein one or more positions on at least two heterocyclic groups (JY) is substituted with a halogen atom or a halogen atom containing group.

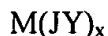
2. (Previously presented) The catalyst system of claim 1 wherein M is boron or aluminum.
3. (Previously presented) The catalyst system of claim 1 wherein J is nitrogen, oxygen, or sulfur.
4. (Previously presented) The catalyst system of claim 1 wherein each J is nitrogen, each (JY) is independently a pyrrolyl, imidazolyl, pyrazolyl, pyrrolidinyl, purinyl, carbazolyl, or indolyl group, and each J is attached to M.

5. (Previously presented) The catalyst system of claim 1 wherein each (JY) is independently unsubstituted or substituted with one or more substituent(s) selected from hydrogen, halogen, linear or branched alkyl, alkenyl or alkynyl radicals, cycloalkyl radicals, aryl radicals, aryl substituted alkyl radicals, acyl radicals, aroyl radicals, alkoxy radicals, aryloxy radicals, alkylthio radicals, dialkylamino radicals, alkoxycarbonyl radicals, aryloxycarbonyl radicals, carbomoyl radicals, alkyl- or dialkyl- carbamoyl radicals, acyloxy radicals, acylamino radicals, aroylamino radicals, straight, branched or cyclic, or alkylene radicals.
6. (Previously presented) The catalyst system of claim 5 wherein one or more of the substituents is halogenated.
7. (Previously presented) The catalyst system of claim 1 wherein each (JY) is substituted with a halogen or a halogen containing group.
8. (Previously presented) The catalyst system of claim 1 wherein each (JY) is independently represented by the formula:



wherein each of X2 to X7 is independently selected from hydrogen, halogen, an alkyl group, a halogenated or partially halogenated alkyl group, an aryl group, a halogenated or partially halogenated aryl group, an aryl substituted alkyl group or a halogenated or partially halogenated aryl substituted alkyl group.

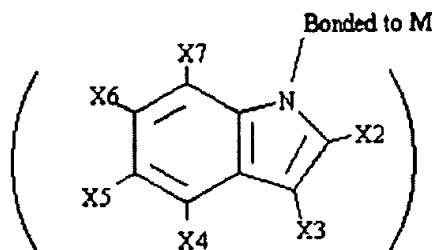
9. (Previously presented) The catalyst system of claim 8 wherein each of X4 to X7 is a fluorine atom.
10. (Previously presented) The catalyst system of claim 9 wherein X3 is hydrogen, a halogenated or partially halogenated aryl group, an aryl substituted alkyl group, or a halogenated or partially halogenated aryl substituted alkyl group.
11. (Previously presented) A catalyst system comprising a catalyst compound and an activator compound wherein the activator compound is represented by the formula:



wherein M is a Group 13 atom attached to a heterocyclic group (JY), wherein Y is a heterocyclic group comprising the at least one heteroatom J;
J is a Group 15 or 16 heteroatom contained in Y; and
x is the valence of M; and
wherein one or more positions on at least two heterocyclic groups (JY) is substituted with a halogen atom or a halogen atom containing group.

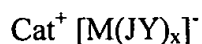
12. (Previously presented) The catalyst system of claim 11 wherein M is boron or aluminum.
13. (Previously presented) The catalyst system of claim 11 wherein J is nitrogen, oxygen, or sulfur.
14. (Previously presented) The catalyst system of claim 11 wherein each J is nitrogen, each (JY) is independently a pyrrolyl, imidazolyl, pyrazolyl, pyrrolidinyl, purinyl, carbazolyl, or indolyl group, and each J is attached to M.

15. (Previously presented) The catalyst system of claim 11 wherein each (JY) is independently unsubstituted or substituted with one or more substituent(s) selected from hydrogen, halogen, linear or branched alkyl, alkenyl or alkynyl radicals, cycloalkyl radicals, aryl radicals, aryl substituted alkyl radicals, acyl radicals, aroyl radicals, alkoxy radicals, aryloxy radicals, alkylthio radicals, dialkylamino radicals, alkoxycarbonyl radicals, aryloxycarbonyl radicals, carbomoyl radicals, alkyl- or dialkyl- carbamoyl radicals, acyloxy radicals, acylamino radicals, aroylamino radicals, straight, branched or cyclic, or alkylene radicals.
16. (Previously presented) The catalyst system of claim 15 wherein one or more of the substituents is halogenated.
17. (Previously presented) The catalyst system of claim 11 wherein each (JY) is substituted with a halogen or a halogen containing group.
18. (Previously presented) The catalyst system of claim 11 wherein each (JY) is independently represented by the formula:



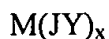
wherein each of X2 to X7 is independently selected from hydrogen, halogen, an alkyl group, a halogenated or partially halogenated alkyl group, an aryl group, a halogenated or partially halogenated aryl group, an aryl substituted alkyl group or a halogenated or partially halogenated aryl substituted alkyl group.

19. (Previously presented) The catalyst system of claim 18 wherein each of X4 to X7 is a fluorine atom.
20. (Previously presented) The catalyst system of claim 19 wherein X3 is hydrogen, a halogenated or partially halogenated aryl group, an aryl substituted alkyl group, or a halogenated or partially halogenated aryl substituted alkyl group.
21. (Previously presented) A process for polymerizing olefin(s) comprising contacting a monomer and optionally a comonomer under polymerization conditions with a catalyst system comprising an activator compound represented by the formula:



wherein M is a Group 13 atom attached to a heterocyclic group (JY), wherein Y is a heterocyclic group comprising the at least one heteroatom J;
J is a Group 15 or 16 heteroatom contained in Y;
x is the valence of M + 1; and
Cat⁺ is a cation component;
and wherein one or more positions on at least two heterocyclic groups (JY) is substituted with a halogen atom or a halogen atom containing group.

22. (Previously presented) A process for polymerizing olefin(s) comprising contacting a monomer and optionally a comonomer under polymerization conditions with a catalyst system comprising an activator compound represented by the formula:



wherein M is a Group 13 atom attached to a heterocyclic group (JY), wherein Y is a heterocyclic group comprising the at least one heteroatom J;

J is a Group 15 or 16 heteroatom contained in Y; and
x is the valence of M; and
wherein one or more positions on at least two heterocyclic groups (JY) is
substituted with a halogen atom or a halogen atom containing group.